

REMARKS/ARGUMENTS

Claims 12-28 and 30-41 are active. Support for the Brief Description of the Drawings section is found in the original disclosure on page 4, line 34 (Fig. 1A), page 5, line 15 (Figs. 1B and 1C), page 6, line 11 (Fig. 2), the paragraph bridging pages 15-16 (Figs. 3A and 3B), page 18, line 15 (Fig. 4), page 18, lines 16 and 23 (Figs. 5A and 5B), page 19, lines 11-27 (Figs. 6A, 6B and 6C).

Claims 1, 2 and 8-11 have been withdrawn from consideration, but have been amended for compliance with U.S. practice. Claim 12 has been amended to refer to a polypeptide which inhibits mitosis and induces endoreplication. While these terms are well known to those in the biological and plant sciences, descriptive support for these terms is also found in the specification at page 1, lines 10-15 and on page 9, lines 19-20. Claim 12 has also been amended to refer to stringent hybridization conditions which are described in the specification at page 12, lines 10-15, i.e. 68°C in 0.5x SSC. Claim 15, as amended, also finds support as described above for Claim 12. Claim 16 now refers to the BLAST program, which is described in the specification on page 3, line 20. Claim 30 finds support in original Claims 3 and 11 and in the specification at page 7, lines 34 and 35. Claims 31-39, which depend from Claim 30 also find support as described above, as well as in the specification on page 8, line 34-page 10, line 31. Expression of antisense transcripts is also described in Example 4 starting on page 16, line 31. Claim 40 finds support in the specification at page 5, lines 22 and 29, and Claim 41 at page 5, lines 26 and 29. Accordingly, the Applicants do not believe that any new matter has been added.

The Applicants thank Examiners Collins and Bui for the courteous and helpful interview of April 3, 2003. It was suggested that Claim 29 be cancelled to avoid certain description issues. Applicants have now cancelled that claim. As suggested the term

“differentiation” has been deleted from independent Claim 12. As discussed, Claim 12 has been amended to refer to SEQ ID NO: 1, fragments of this sequences, and sequences which hybridize to SEQ ID NO: 1 under defined stringent hybridization conditions, and which encode polypeptides that comprise WD-40 repeats and which inhibit mitosis and induce endoreplication. It was suggested that such an amendment might also help avoid the prior art rejections. The Applicants believe that the amended claim language adequately describes and enables the claimed subject matter by specifying both structural and functional characteristics of the claimed nucleic acids. In view of the above amendments, favorable consideration is requested.

Information Disclosure Statement

The information disclosure was indicated as not complying with Rule 1.97(e) and lacking the fee required by Rule 1.17(p). These documents correspond to those listed on the international search report and thus are not newly cited prior art. These were placed on Form 1449 for the convenience of the Office. Accordingly, the Applicants respectfully request that the Examiner formally acknowledge their consideration in the next Official Action by signing and returning this Form 1449.

Objection—Specification

The specification was objected to as lacking a Brief Description of the Drawings section. This objection is moot in view of the amendment to the specification.

Objection-Claims

Claim 12 part (b) was objected to for use of the plural “plants”. This objection is moot in view of the amendment of this claim.

Rejection—35 U.S.C. 112, first paragraph

Claim 29 was rejected under 35 U.S.C. 112, first paragraph, as lacking adequate description of a consensus sequence. This rejection is moot in view of the cancellation of this claim.

Rejection—35 U.S.C. 112, first paragraph

Claims 12-29 were rejected under 35 U.S.C. 112, first paragraph, as lacking adequate description or enablement for the claimed genus. The Applicants submit that this rejection may now be withdrawn in view of the amendment of independent Claim 12 to recite that the claimed nucleic acid sequences encode a protein which inhibits mitosis and induces endoreplication, and in view of the structural limitation of this claim to (a) SEQ ID NO: 1 or a fragment of SEQ ID NO: 1 which comprises WD-40 motifs, or (b) a nucleic acid sequence which hybridizes to the full length complement of coding portion of SEQ ID NO: 1 under the stringent hybridization conditions recited by Claim 12.

Rejection—35 U.S.C. 112, second paragraph

Claims 12-29 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. These rejections are moot in view of the amended claim language.

Rejection—35 U.S.C. 102

Claims 12-23 and 26-29 were rejected under 35 U.S.C. 102(b) as being anticipated by Zhou et al., Mol. Gen. Genet. 257:387. This rejection is moot in view of the amended claim language which directs independent Claim 12 to SEQ ID NO: 1 or to sequences which

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hybridize to the full-length complement of SEQ ID NO: 1 under stringent conditions.

Accordingly, this rejection may now be withdrawn.

Rejection—35 U.S.C. 103

Claims 24 and 25 were rejected under 35 U.S.C. 103(a) as being unpatentable over Zhou et al., Mol. Genet. 257:387, in view of allegedly admitted prior art. The Applicants respectfully submit that this rejection depends on Zhou and that Zhou has been overcome for the reasons set forth above for the anticipation rejection.

CONCLUSION

In view of the above amendments and remarks, the Applicants respectfully submit that this application is now in condition for allowance. Early notification to that effect is earnestly solicited.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.


Norman F. Oblon
Attorney of Record
Registration No. 24,618



22850

Tel: (703) 413-3000
Fax: (703) 413 -2220

Thomas M. Cunningham
Registration No. 45,394